Supplemental System Impact Study

Study Plan

GWF Power Systems

Henrietta Peaking Plant

Pacific Gas and Electric Company

July 18, 2001

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Introduction

Pacific Gas and Electric Company (PG&E) had performed the System Impact/ Facilities Study (ESI/FS) for Henrietta Peaking Plant (Project) for GWF Power Systems (GWF). The study report was issued on July 3, 2001. The ISO has requested that PG&E conduct a Supplemental System Impact Study (SSIS) to determine the impacts caused by the Project during Off-Peak conditions. This study plan will form the basis for the SSIS Agreement by defining the scope, content, assumptions, and terms of reference of the SSIS. The SSIS will supplement the previously issued SI/FS. The SSIS will:

1) Supplement the existing report,

2) Evaluate any additional transmission system impacts, and

3) Provide limitations to the generator's output to mitigate the transmission system impact, if any, caused solely by the project during the Spring Peak and Off-Peak system conditions.

Study Fee

No additional charges are assessed for this study. The study is now ongoing

Schedule

The following Table 1 shows the milestones/schedules associated with the study.

Task	Milestone Description	Target Date
1	Issue SSIS final report	8/10/2001

Table 1: Study Schedule

Cost Estimates

The cost estimate for interconnecting the project to PG&E system was provided in the original ESI/FS. No additional cost estimate will be provided in this supplemental study.

Project Information

The Table 2 shows the Project information.

Project Location	25th Avenue south of Highway 198 in Lemoore and adjacent to Henrietta Sub.
PG&E Planning Area Where Project Will Be Located	Area 6
Number Of Generators	2
Type Of Generator(s)	Gas Turbine (LM 6000)
Total Project Output (Maximum)	95.8 MW
Power Factor (Will Be Used For Modeling)	85% (Lag) – 95% (Lead)
Description Of Interconnection Configuration	Connected to Henrietta Sub 70 kV bus through own 70 kV breakers.
Voltage At Which Project Is Connected To PG&E's Grid	70 kV

Table 2: Project Information

Interconnection

Figure 1 provides a single line of the project.

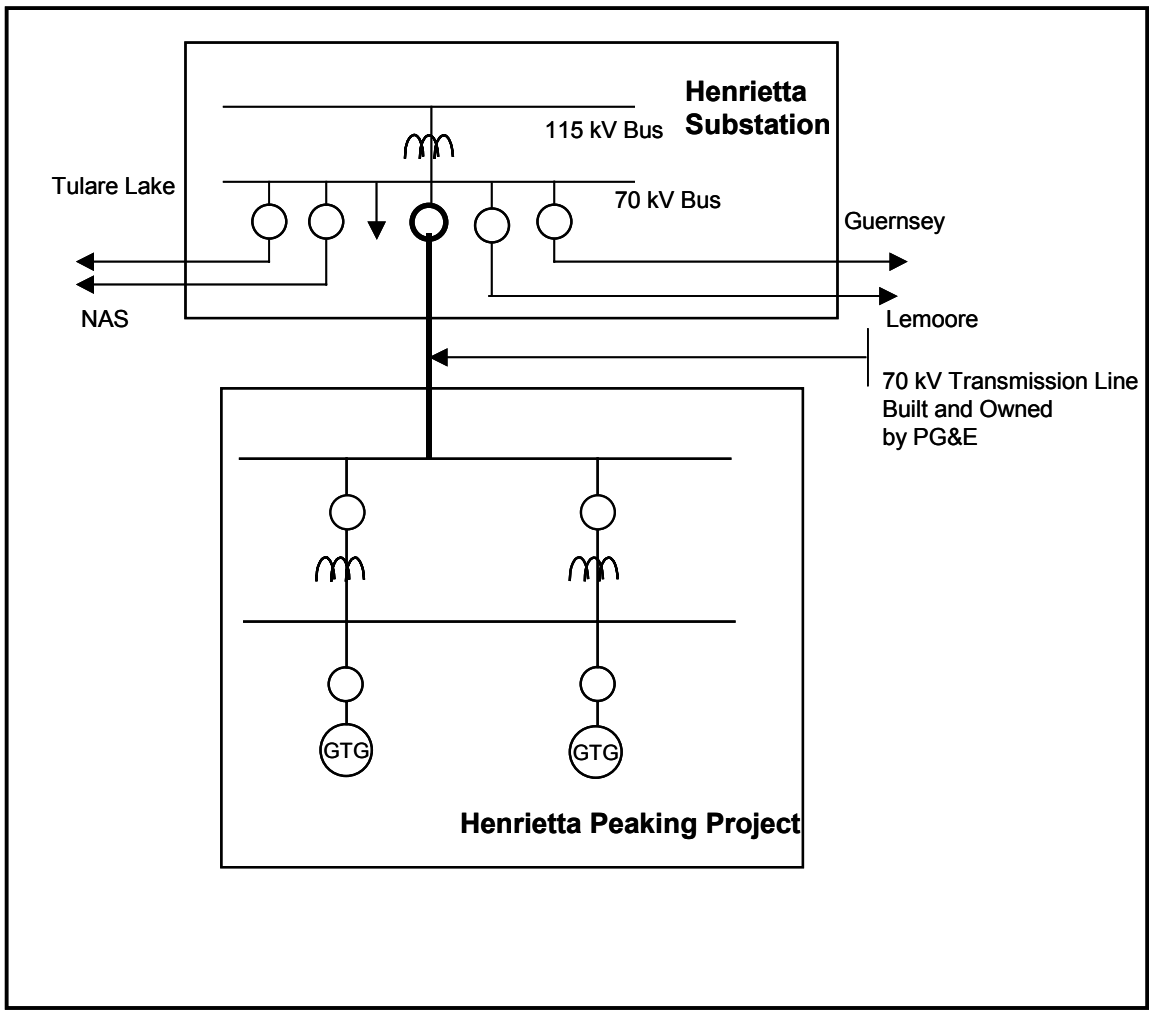

Figure 1: Single line Diagram of Panoche Peaker # 2 Project

Power Flow Study Base Case Assumptions

Power flow analysis will be performed using three base cases:

- **2002 Summer Off-Peak Base Case:**

  Power flow analysis will also be performed using a 2002 Summer Off-Peak base case in order to evaluate potential congestion on transmission facilities during the Off-Peak system condition. CAISO's System Operations group has provided the Summer Off-peak base case. The Summer Off-peak load will be about 1200 MW in

the Fresno/Yosemite areas. The Path 15 flows will be around 2700 MW south-to-north direction. One unit at Helms PGP will be assumed in pumping mode, and the Exchequer PH is generating only at 10 MW level.

The study will take into account all the approved PG&E transmission reliability projects that will be operational by summer 2002. The following generation projects in Fresno / Yosemite areas will be modeled in the base cases to reflect the proper generator queuing position of this project:

- Dinuba Energy Generation Facility
- Fresno Peaker Project
- Chowchilla #2 Project
- Madera Power Project
- GWF Hanford Project
- Cal Peak's Panoche Peaker Project
- Wellhead's Los Banos Peaker Project
- Wellhead's Panoche Peaker Project
- Wellhead's Gates Peaker Project
- Wellhead's Panoche Peaker #2 Project

Study Scope

The SSIS will determine the impact of the project on PG&E's transmission system. The specific studies conducted are outlined below:

Steady State Power Flow Analysis

Power Flow analysis will be performed using the Off Peak base case. In this SSIS, the base case will be used to simulate the impact of the project during normal operating conditions and with all single (CAISO Categories "B") outages in the PG&E's Fresno/Yosemite planning areas.

Pacific Gas and Electric Company

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Supplemental System Impact Study Agreement

_____ (GWF) has reviewed the study plan for the interconnection of GWF's electric generating plant with PG&E's system at _____[1], State of California and agrees with the proposed plan.

GWF hereby submits the proposed study fee.

Dated this _____ day of _____, 2001

GWF:

BY: _____
(Signature)

_____
(Type or Print Name)

TITLE: _____

MAILING ADDRESS:

_____

_____

_____

_____

PG&E confirms receipt of the study fee and agrees to perform the system impact study in accordance with the procedures set forth in the Henrietta Peaking Plant dated July 18, 2001.

Received by PACIFIC GAS AND ELECTRIC COMPANY

Name_____

Date_____

Time_____

[1] Enter city and county location of proposed facility.